

SANDSTONE HILLS

RANGE SITE DESCRIPTION

PE-56-64

Land Resource Area East Cross Timbers

Location Gainesville, Sherman

Date 9/15/72

1. TOPOGRAPHY AND ELEVATION: This site commonly consists as a chain of hills but may occur as an isolated hill. The general aspect is sandstone or conglomerate boulder-type rock scattered over the surface of strongly sloping terrain. Slopes range from 3-12+ percent but are commonly 8 percent or more. Elevations range from 500 - 1000 feet.
2. SOILS:
 - a. The soils of this site consist primarily of fine sandy loams that are underlain by sandstone. Some pockets of shaly material are sometimes present under the sandstone layers. Sandstone rock and boulders ranging up to 6 feet in diameter cover 15-30 percent of the soil surface. Moisture penetration and storage is relatively good. However, total production is often limited by the extent of surface rock and the volume of stones in the soil profile.
 - b. Some soil taxonomic units which characterize this site are:
Bonti stony fine sandy loam
Truce stony fine sandy loam
Exray stony fine sandy loam
Nebgen stony fine sandy loam
3. CLIMAX VEGETATION:
 - a. The climax plant community is a savannah of mid and tall grasses with significant amounts of forbs and low-growing woody vines and shrubs. The woody overstory consists primarily of post oak and shades about 25 percent of the ground in pristine conditions. Little bluestem dominates the site making up 25 percent or more of the total annual yield.

RELATIVE PERCENTAGE

Grasses	70%	Woody	25%	Forbs	10%
Little bluestem	35	Postoak and black-		Lespedezas	
Purpletop	15	jack oak	15	Wildbeans	
Indiangrass	10	Greenbriar		Yellow neptunia	
Beaked panicum		Dewberries		Tickclovers	10
Big bluestem		Coralberry	10	Snoutbeans	
Sand lovegrass	5	Cedar elm			
Sideoats grama					
Tall dropseed					
Texas wintergrass					
Vine mesquite					
Silver bluestem					
Plains lovegrass					
Purple lovegrass	5				
Purple threeawn					
Hairy grama					
Sedges					

- b. As retrogression occurs, little bluestem decreases and the woody overstory of oak increases, creating a shaded habitat unsuitable for most climax grasses. Continued deterioration of the site results in a plant community dominated by the oak overstory and low growing woody shrubs and vines. Winged elm, common persimmon, sumac, western ragweed, curlytop gumweed, broomsedge bluestem, splitbeard bluestem, tumblegrass, Texas grama and red threeawn invade the site under prolonged abuse.
- c. Approximate total annual yield of this site in excellent condition ranges from 2000 pounds per acre in poor years to 4500 pounds per acre of air-dry vegetation in good years.
4. WILDLIFE NATIVE TO THE SITE: Deer, dove and quail inhabit this site. An abundant variety of woody and herbaceous plants affords food and cover for game birds and animals as well as habitat for other wildlife.
5. GUIDE TO INITIAL STOCKING RATE:

a. Condition Class	Climax Vegetation	Ac/AU/YL
Excellent	76-100	12-16
Good	51-75	14-20
Fair	26-50	18-26
Poor	0-25	22-30

b. Introduced Species

<u>Species</u>	<u>Percent of the Area Established</u>			
	<u>100-76</u>	<u>75-51</u>	<u>50-26</u>	<u>25-0</u>
King Ranch bluestem	12-14	14-18	18-24	24+

RELATIVE FORAGE QUALITY OF SPECIES 1/

a. Cattle

<u>Primary 2/</u>	<u>Secondary 3/</u>	<u>Low Value 4/</u>
Little bluestem	Texas wintergrass	Fall witchgrass
Big bluestem	Vine mesquite	Red lovegrass
Indiangrass	Carolina jointtail	Texas grama
Beaked panicum	Silver bluestem	Tumblegrass
Sand lovegrass	Scribner panicum	Red threeawn
Purpletop	Fringeleaf paspalum	Broonsedge bluestem
Sideoats grama	Plains lovegrass	Splitbeard bluestem
Tall dropseed	Purple threeawn	Western ragweed
	Hairy grama	Curlycup gumweed
	Sedges	Common persimmon
		Winged elm
		Sumac

b. Deer

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Greenbriar	Oak buds & twigs	Ragweeds
Dewberries	Sumac	Common persimmon
Wildbeans	Tickclovers	
Oak mast	Hawthorns	
Elm		

c. Dove and Quail 5/

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Ragweeds	Curlycup gumweed	Fluffy-seeded
Croton	Wildbeans	grasses
Lespedezas	Snoutbeans	Threeawns
Tickclovers		
Acorns & other mast		
Sunflowers		
Catclaw sensitivebriar		
Dewberries		

- 1/ This plant rating system gives guidance on animal preference for plant species as well as indicating competition between kinds of animals for various plants. Grazing preference does not necessarily reflect a plant's ecological place in the climax plant community. Grazing preferences change depending upon the animal; upon plant palatability and nutritive value, stage of growth, season of use relative abundance, availability and plant associations.
- 2/ These species generally decrease under prolonged heavy grazing use.
- 3/ These plants usually increase initially, then decrease under prolonged heavy grazing use.
- 4/ These plants continue to increase with prolonged heavy grazing use.
- 5/ For these species the terms primary, secondary and low value indicate animal preference only. They do not indicate plant response to feeding pressure; nor do they have any ecological significance.

APPROVED:

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AREA CONSERVATIONIST

9/25/72

DATE

Joe B. Norris

FIELD SPECIALIST - RANGE

9/25/72 -

DATE